VZCZCXRO5695
RR RUEHBZ RUEHDU RUEHJO RUEHMR RUEHRN
DE RUEHTO #0073/01 0271017
ZNR UUUUU ZZH
R 271017Z JAN 09
FM AMEMBASSY MAPUTO
TO RUEHC/SECSTATE WASHDC 9848
INFO RUCNSAD/SOUTHERN AFRICAN DEVELOPMENT COMMUNITY
RUEHLO/AMEMBASSY LONDON 0343
RUCLRFA/USDA FAS WASHDC

UNCLAS SECTION 01 OF 02 MAPUTO 000073

SIPDIS

E.O. 12958: N/A

TAGS: <u>SENV EAGR ECON EAID TBIO MZ</u> SUBJECT: BIOTECHNOLOGY IN MOZAMBIQUE

11. (U) SUMMARY: The Charge and Embassy Science Fellow recently met with Mozambique's Minister of Science and Technology, Venancio Massingue, to discuss advancement of biotechnology in the country. The Fellow highlighted the need for Mozambique to significantly increase the level of education and number of individuals trained in biotechnology. The Minister urged the USG to assist Mozambique in developing its biotechnology sector by increasing fellowship opportunities for Mozambican scientists to receive training in the United States and encouraging faculty exchanges between the United States and Mozambique. END SUMMARY.

STATUS OF BIOTECHNOLOGY IN MOZAMBIQUE

12. (U) The Fellow, Dr. Norman Peters, briefed the Minister of Science and Technology on his investigations and research during the course of his fellowship, noting that the status of biotechnology in Mozambique is rudimentary, but practical. He indicated that there are three main institutions utilizing biotechnology in Mozambique. First, the National Agricultural Research Institute, which used USAID funds to establish a plant tissue culture facility for propagation of plant materials, is working on innovations in banana, sweet potato, and cassava. Next, the immunology lab at the Central Hospital of Mozambique focuses on viral diagnostics, primarily HIV, but has recently expanded into Hepatitis A. At this lab there are capabilities for ELIZA, DNA sequencing, and proteomics. Finally, the Biotechnology Center at the University contains four colleges, Veterinary, Science, Medicine, and Agriculture, that all train students to use faculty specific technologies.

MOZAMBIQUE'S SCIENCE AND TECHNOLOGY STRATEGY

13. (U) The Fellow reviewed the Mozambique Science, Technology and Innovation Strategy ("MOSTIS"), which is the GRM's 10-year plan to develop science and technology in Mozambique. The Fellow noted a key drawback of the 80-page document is that implementation is addressed in a single page, consequently, the MOSTIS functions more as a visionary document than a practical approach to improving science and technology in Mozambique. He observed that the principal focus areas of the MOSTIS are practical, emphasizing diagnostics, animal and plant breeding, and other applicable technologies that will immediately impact the life and business of Mozambicans. Some of the key priorities are: Applying current technologies to improve the productivity of subsistence crops and livestock breeds; using biotechnology to enhance land management for agriculture and livestock; characterizing genetic markers of relevant traits of local food crops and animal breeds for selection and breeding purposes; identifying determinants, major pathogens and vectors of high-impact diseases of humans, animals, plants, and marine species; applying molecular detection and molecular epidemiology methods to support the control of

disease; and researching mechanisms of disease infection and protection in humans and animals and mechanisms of resistance and adaptation in crops and plants.

EDUCATION

 $\underline{\P}4$. (U) The Fellow observed that the dire lack of persons trained to work in the biotechnology field in Mozambique is a significant obstacle to Mozambique's development. The MOSTIS calls for over 6,500 Mozambican researchers by 2025, yet there are less than 600 researchers currently. The Fellow noted that without a workforce trained in biotechnology, there will be no one to carry out routine laboratory analysis, repair and maintain the laboratory equipment, and/or develop new diagnostics and adapt them to Mozambican needs. He indicated that issues around human resource development for biotechnology in Mozambique are numerous, including sufficient instructors, appropriately equipped teaching laboratories, English language training, appropriate level of jobs awaiting graduates, and funding for research. To overcome this obstacle, the Minister responded that it is essential that Mozambique cooperate and seek out assistance from more developed countries, including the United States, to train researchers in Mozambique. The Minister indicated that currently there are already faculty/student exchanges between Mozambique, Italy, France, Brazil, and Sweden, and similar exchanges are supported by existing programs in the U.S, including the Fulbright Program. The Minister said it was evident that Mozambique will need to receive significant higher levels of assistance in this area to meet the lofty

MAPUTO 00000073 002 OF 002

goal of 6,500 Mozambican researchers being present in Mozambique by 2025.

COMMENT

15. The Embassy actively promotes the development of Mozambique's biotechnology sector. Our efforts involve utilizing existing programs, such as the Fulbright program, to train Mozambican scientists in the United States. In addition, we support programs funded through the United States Department of Agriculture in Mozambique. $\begin{tabular}{ll} \hline \end{tabular}$ Specifically, the Norman Borlaug International Science and Technology Fellows Program and the Cochran Fellowship Program provide U.S. based agricultural training opportunities for senior and mid-level specialists and administrators from public and private sectors who are concerned with agricultural trade, agribusiness development, management policy, and marketing. The opportunity for increased cooperation in the realm of science and technology between Mozambique and the United States currently exists, especially in the area of training the scientists and researchers needed to develop its biotechnology sector. Chapman